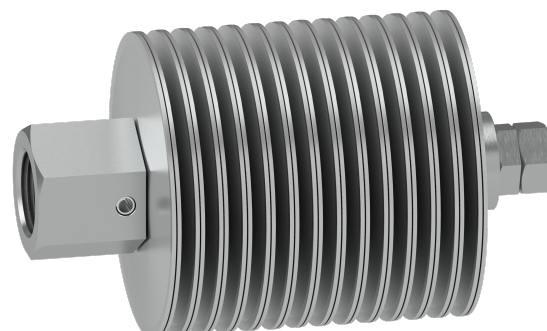


## STEAM INJECTORS SI20

### DESCRIPTION

The ADCAMix SI20 is a series of direct steam injectors designed for low-noise heating of still or flowing mediums, inside basins and vessels. Steam enters through the inlet connection and passes along the center of the device through holes in the inner rings until reaching the element plates, where most of the steam condenses. The condensate is then discharged at low velocity through the hundreds of serrated apertures in the periphery of the element plates and into the cool medium. Under heavy loads if any steam passes through the periphery of the element plates, it will do so in very small jets, thus condensing in the surrounding liquid with very little noise and vibration.



### MAIN FEATURES

- Quiet operation.
- Corrosion-resistant stainless steel construction.
- Appropriate for modulating control systems.
- No moving parts.

**OPTIONS:** Complete system including vacuum breaker and self-acting temperature regulator.  
Different capacities and designs available under request.

**USE:** Heating via direct steam injection.

**AVAILABLE MODELS:** SI20-4, SI20-5,5 , SI20-7 and SI20-8,5.

**SIZES:** 3/4".

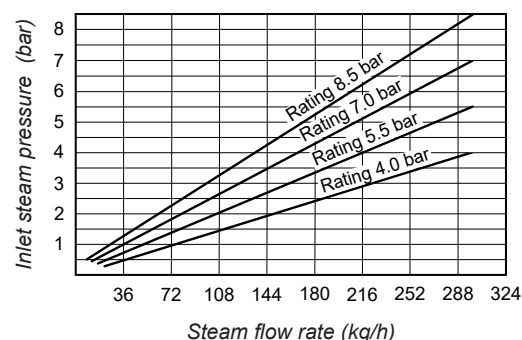
**CONNECTIONS:** Female threaded ISO 7 Rp.  
Others on request.

**INSTALLATION:** Horizontal or vertical installation.  
See IMI – Installation and maintenance instructions.

| CE MARKING – GROUP 2<br>(PED – EUROPEAN DIRECTIVE) |          |
|--|----------|
| PN 10  | CATEGORY |
| 3/4"   | SEP      |

| LIMITING CONDITIONS           |         |
|-------------------------------|---------|
| Maximum operating pressure    | 8,5 bar |
| Maximum operating temperature | 180 °C  |

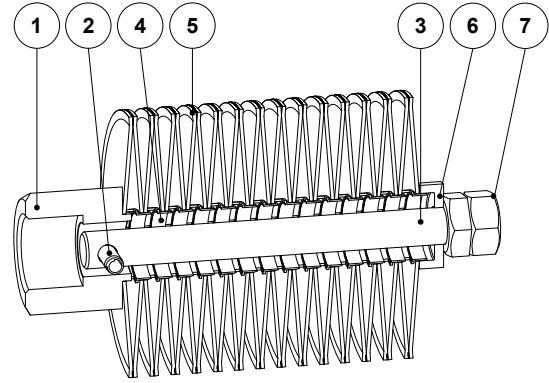
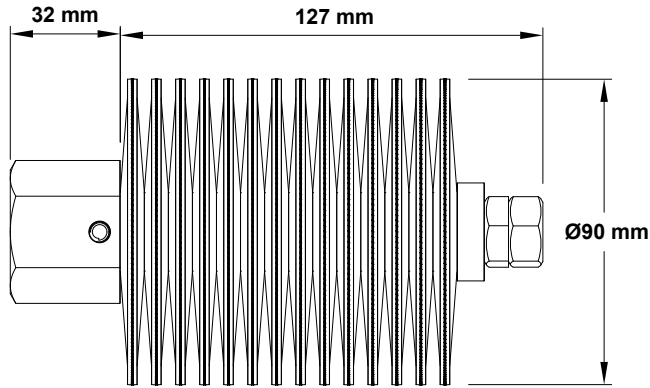
**CAPACITY CHART**  
(With vessel at atmospheric pressure)



### HOW TO SIZE

#### Example

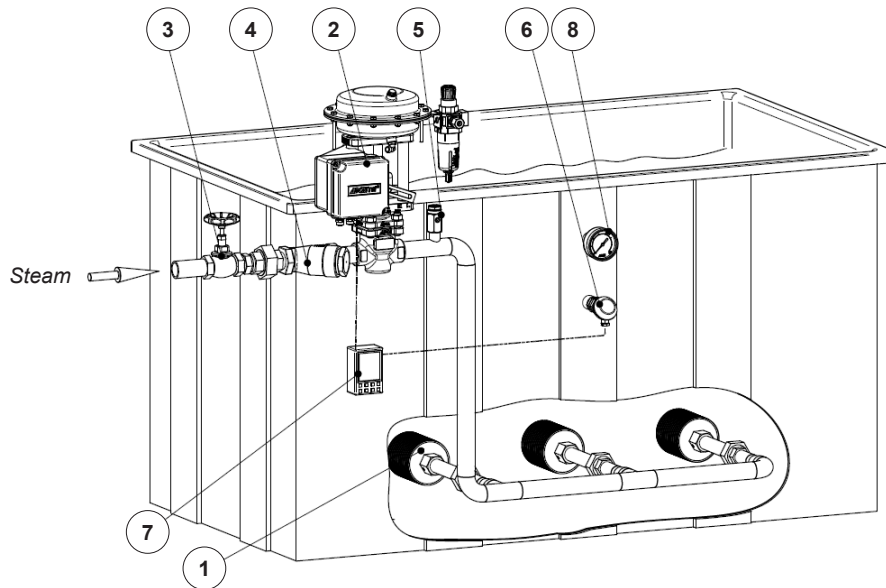
Application requires injection of 950 kg/h of saturated steam, which is readily available at a pressure of 5 bar. Assuming a 20% pressure drop across the self-acting temperature regulator, the steam supply to the injectors will be of 4 bar. From the capacity chart, the injector will process 293 kg/h at 4 bar, and 950 divided by 293 equals 3,24. Three injectors will barely cope, so it is recommended to install four ADCAMix SI20 injectors, to safely meet the demand.



**MATERIALS**

| POS. No. | DESIGNATION     | MATERIAL          |
|----------|-----------------|-------------------|
| 1        | Inlet housing   | AISI 304 / 1.4301 |
| 2        | Pin             | AISI 301 / 1.4310 |
| 3        | Tie-rod         | AISI 304 / 1.4301 |
| 4        | Inner ring      | AISI 304 / 1.4301 |
| 5        | Element plate   | AISI 304 / 1.4301 |
| 6        | Retaining plate | AISI 304 / 1.4301 |
| 7        | Retaining nut   | AISI 304 / 1.4301 |

**TYPICAL INSTALLATION**



**EQUIPMENT**

| POS. No. | DESIGNATION  |
|----------|--|
| 1        | ADCA SI20 Steam injector                                 |
| 2        | ADCATrol Control valve with electro-pneumatic positioner |
| 3        | ADCA Bronze globe valve                                  |
| 4        | ADCA Y strainer  |
| 5        | ADCA Vacuum breaker                                      |
| 6        | ADCATrol Pt100 temperature sensor                        |
| 7        | ADCATrol process controller                              |
| 8        | Temperature indicator                                    |